

General User Proposal Form CENTER FOR FUNCTIONAL NANOMATERIALS Brookhaven National Laboratory	Request is for Cycle: <input type="radio"/> January – April <input type="radio"/> May – August <input type="radio"/> September – December	Proposal # [CFN Use Only]
	See Instructions on Page 5	

1. Experiment Title

2. Proposer (Correspondence will be addressed to the Proposer). All fields are required.

Name: _____ Institution: _____
 Address: _____
 Phone: _____ Fax: _____ Email: _____
 Principal Investigator: _____ PI's Institution: _____

3. Request for FacilityTime

- ☐ **New Proposal** & Request for Time in this cycle **Total lifetime days** required for entire project (6 cycles/2 year):
☐ **FacilityTime Request** for **Proposal #** **Minimum days** required to perform experiment effectively (this cycle):

4. Facility Selection

Select: Place a check mark next to the equipment or beamlines desired. Up to 3 may be used consecutively in the same cycle.
Order: If you have selected more than 1 piece of equipment or beamline for this cycle, select the order in which they must be used.
Minimum Days: Indicate the minimum number of days at this station.

Facility Staff Contact: You must contact a facility staff member to ensure your experiment can be performed safely and effectively. Under each facility indicate the name of the person you have contacted.

<input checked="" type="checkbox"/>	1 st	2 nd	3 rd	Days	Facility	Facility Staff Contacted (Name):
<input checked="" type="checkbox"/>					Nanopatterning	
<input type="checkbox"/>	1	2	3		AMRAY 1845 field emission SEM & NPGS e-beam controller	
<input type="checkbox"/>	1	2	3		Suss MJB-3 Mask Aligner	
<input type="checkbox"/>	1	2	3		Plasma Technology RIE 80 plasma etcher	
<input type="checkbox"/>	1	2	3		JSM 6500 Scanning Electron Microscope	
<input type="checkbox"/>	1	2	3		JEOL JBX-9300FS electron beam lithography tool	
<input checked="" type="checkbox"/>					Materials Synthesis	
<input type="checkbox"/>	1	2	3		Pulsed laser deposition system	
<input type="checkbox"/>	1	2	3		Sputtering system	
<input type="checkbox"/>	1	2	3		Arc furnace, tube and box furnaces	
<input type="checkbox"/>	1	2	3		NEC SCI-MDH-20020-SP Infrared Float. Zone Image Furnace	
<input type="checkbox"/>	1	2	3		Analytical equipment: powder x-ray diffraction, SQUID magnetometer/Thermal analysis/optical microscopy	
<input checked="" type="checkbox"/>					Electron Microscopy	
<input type="checkbox"/>	1	2	3		JEOL3000F 300kV scanning/transmission electron microscope	
<input type="checkbox"/>	1	2	3		JEOL4000EX 400kV transmission electron microscope	
<input type="checkbox"/>	1	2	3		PHI 600 Scanning Auger Multiprobe	
<input type="checkbox"/>	1	2	3		JEOL-6400 Scanning Electron Microscope	
<input checked="" type="checkbox"/>					NSLS Nanoscience	
<input type="checkbox"/>	1	2	3		Infrared microspectroscopy (IRMS)	<input type="radio"/> U2B <input type="radio"/> U10B
<input type="checkbox"/>	1	2	3		Infrared transmission and reflection spectroscopy	<input type="radio"/> U10A <input type="radio"/> U12IR
<input type="checkbox"/>	1	2	3		Microdiffraction imaging	<input type="radio"/> X20A <input type="radio"/> X26A
<input type="checkbox"/>	1	2	3		Scanning transmission x-ray microscopy (STXM)	<input type="radio"/> X1A1 <input type="radio"/> X1A2
<input type="checkbox"/>	1	2	3		Small angle x-ray scattering (SAXS)	<input type="radio"/> X10A <input type="radio"/> X21 <input type="radio"/> X27C
<input type="checkbox"/>	1	2	3		X-ray absorption spectroscopy (XAS, XAFS)	<input type="radio"/> X18B <input type="radio"/> X19A <input type="radio"/> X23A2
<input type="checkbox"/>	1	2	3		X-ray absorption spectroscopy, near edge (NEXAFS, XANES)	<input type="radio"/> U7A
<input type="checkbox"/>	1	2	3		X-ray diffraction (XRD), powder	<input type="radio"/> X3B1 <input type="radio"/> X7A
<input type="checkbox"/>	1	2	3		X-ray magnetic circular dichroism (XMCD)	<input type="radio"/> U4B
<input type="checkbox"/>	1	2	3		X-ray microprobe	<input type="radio"/> X26A <input type="radio"/> X13B
<input type="checkbox"/>	1	2	3		X-ray photoemission spectroscopy	<input type="radio"/> U8B
<input type="checkbox"/>	1	2	3		X-ray reflectivity	<input type="radio"/> X22A <input type="radio"/> X18A
<input type="checkbox"/>	1	2	3		X-ray scattering or diffraction (XRD), surface	<input type="radio"/> X18A <input type="radio"/> X22A
<input type="checkbox"/>	1	2	3		X-ray scattering, liquid	<input type="radio"/> X19C
<input type="checkbox"/>	1	2	3		X-ray scattering, magnetic	<input type="radio"/> U4B
<input type="checkbox"/>	1	2	3		X-ray standing waves (XSW)	<input type="radio"/> X15A

<input checked="" type="checkbox"/>	1 st	2 nd	3 rd	Days	Proximal Probes	Facility Staff Contacted (Name):
<input type="checkbox"/>	①	②	③	<input type="checkbox"/>	Omicron VT UHV atomic resolution STM	
<input type="checkbox"/>	①	②	③	<input type="checkbox"/>	Near-field Scanning optical microscope	
<input type="checkbox"/>	①	②	③	<input type="checkbox"/>	Preparation chamber with MBE and oxygen	

<input checked="" type="checkbox"/>	1 st	2 nd	3 rd	Days	Ultrafast Optical Source	Facility Staff Contacted (Name):
<input type="checkbox"/>	①	②	③	<input type="checkbox"/>	Nonlinear Optical Surface Probe Facility	
<input type="checkbox"/>	①	②	③	<input type="checkbox"/>	Ultrafast x-ray lab	

<input checked="" type="checkbox"/>	1 st	2 nd	3 rd	Days	Theory And Computation	Facility Staff Contacted (Name):
<input type="checkbox"/>	①	②	③	<input type="checkbox"/>	Software and Computational Services	

5. NSLS Beamline Experimental Requirements

If you have selected a NSLS Beamline under the NSLS Nanoscience, complete this section. Otherwise continue to Question 6.

Wavelength/Energy Range:

Spot size on sample:

Resolution:

Energy:

or q:

Other:

6. Unacceptable Dates

List below the dates that are unacceptable to the Proposer to perform this experiment (in this cycle):

7. Mode of Operation

Are you collaborating with CFN personnel in performing this work or experiment?

☐ Yes ☐ No

Do you plan to perform this work or experiment without assistance from CFN personnel? Prior permission is required.

☐ Yes ☐ No

8. Disclosure

Is it acceptable to disclose scientific content of this proposal to CFN personnel prior to experimental approval?

☐ Yes ☐ No

9. Equipment Requirements

A. Special Equipment. List below any special equipment or facilities required to perform this experiment (e.g., vacuum). If gas phase equipment is planned (for NSLS beamline experiments), please attach a schematic and description of the differential pumping or vacuum isolation scheme to be used.

B. Your Equipment. List below all equipment and materials you will be bringing in order to perform this experiment. If you are providing your own end station or apparatus, you must provide detailed information concerning this equipment below. You must also discuss the feasibility with Cluster personnel prior to submitting this form.

C. Cluster Equipment. List below all equipment and materials to be provided by the Cluster.

10. Safety & Hazards

Are there any safety concerns, hazardous materials or experimental equipment (read below).

☐ Yes ☐ No

List below all radioactive, toxic or explosive substances or hazardous procedures and their disposition. List all materials and equipment that you will insert into the beamline vacuum system. Describe samples, their out gassing properties, and any electromagnetic fields generated so that the effect on the ring and beamline vacuum and/or the ring orbit and nearby beamlines can be evaluated.

11. Scientific Theme Area

Select the appropriate thrust area associated with your experiment.

☐ Strongly Correlated Oxides

☐ Charge Transfer

☐ Other: (please specify)

☐ Magnetic Nanoassemblies

☐ Thin Organic Films

☐ Nanocatalyst Materials

☐ Nanomaterials Applications

12. Research Description

Below provide sufficient details about your program or experiment to justify your cluster time request. The write-up must include the following:

- Description of experiment
- Scientific importance
- What you expect to accomplish
- Description of prior work
- (From Question 4:) Explain why the selected order of equipment or beamlines is necessary. Explain why this equipment or beamline is critical to your experiment in the cycle requested and whether use of the selected equipment or beamline(s) must immediately follow other equipment you have selected.
- **If this is a Cluster Time Request**, include progress to date, results obtained, problems encountered (with proposed solutions), what you expect to accomplish, and details to justify that you have made efficient use of the equipment and/or beamlines.
- Why a particular cluster or synchrotron radiation is required
- Which characteristics are important (focusing, equipment, etc.)
- Three publication citations that will assist panel in evaluating your work

INSTRUCTIONS

Completing the Form: Download the form to your computer. Either type into the form while displayed on your monitor (preferred method) or print it out and use a typewriter. Proposals that are incomplete, illegible or late (see deadlines below) will not be accepted.

- **New Proposals:** Complete all fields.
- **Cluster Time Requests:** Complete all fields except “3. Total Lifetime Days...”

Proposal Lifetimes and Cycle Lengths: Each Proposal is active for 2 year (6 cycles) UNLESS the maximum allotted cluster time has been reached OR the proposal received a rating between 4 and 5. Cycles are 4 months long. Subsequent requests for cluster time must be submitted on a new Cluster Time Request Form for the next cycle.

Insertion Devices: Download the appropriate form if applying to use insertion devices.

Deadlines: Proposals and Requests for Cluster Time must be received by User Administration before 5 p.m. eastern standard time on the deadline date for each cycle listed below.

Cycle 1 (January – April) due September 30	Cycle 2 (May – August) due January 31	Cycle 3 (September – December) due May 31
Send Proposals by email: gcisco@bnl.gov		
NSLS User Administration Proposals Brookhaven National Laboratory P. O. Box 5000, Bldg. 725B Upton, New York 11973-5000	Phone: (631) 344-4703 or Alt. Phone: (631) 344-NANO Fax: (631) 344-7206	